basic local rates are not unreasonable in light of the high costs that the CLEC will face. A misspecification of these inputs may yield results that, on their face, appear reasonable, but which could not occur in reality.

B. The Model Fails to Consider Certain Key Factors in the Development of Competition for Local Exchange Services

Among the most important variables that will affect the ability of CLECs profitably to provide local exchange service are the method adopted for reciprocal compensation for local exchange traffic originating on CLEC networks and terminating on ILEC networks and vice versa, and the development of a competitively neutral universal service funding mechanism as required by Section 254 of the Act. Neither of these variables is considered by the model.

As discussed in MCI's Comments in response to the Notice of Proposed Rulemaking in this proceeding, the method adopted for reciprocal compensation for the exchange of local exchange traffic is of crucial importance to CLECs in determining whether they profitably may enter the market for local exchange services. A rate set substantially above cost, or a differential in rates between the rate charged for traffic originating on the CLEC's network and terminating on the ILEC's network and that charged for traffic going in the opposite direction may have a major effect on the rate charged by the CLEC and may determine whether CLECs may enter the market at all. This is due to the fact that, at least initially, the vast majority of the CLECs' traffic will terminate on the ILEC's network, while only a very small proportion of the ILEC's total

traffic will terminate to the CLECs' networks.²³ The model does not permit specification of what reciprocal compensation mechanism will be adopted, nor does it permit specification of a rate to be charged for local traffic exchange.

The model's treatment of universal service funding assumes that current universal service funding programs will remain in place, and that all universal service funding will be provided only to ILECs. While the model appears to provide for consideration of alternative funding mechanisms for universal service, the relationship between the adoption of alternative funding mechanisms and the existing universal service fund is not modeled. At specification 58, the user of the model may enter a value for total universal service funding by year. In specifications 59 through 65, the user may enter per-minute amounts to be surcharged on access minutes or toll minutes, or a percentage surcharge on total telecommunications revenue or total interstate telecommunications revenue. However, there is no relationship in the model between the amounts entered in specifications 59 through 65 and the amount of universal service funding in specification 58.

Thus, the model fails to permit consideration of a universal service funding mechanism that is portable among carriers, and fails to consider the effects on the need for current universal service funding in light of any alternative mechanisms for generating universal service support. As a consequence of the lack of funding portability in the model, a set of specifications could be entered that would appear to make CLEC entry into the local market unprofitable (because the rate charged for unbundled loops, defined

Even though a larger proportion of the CLEC's total traffic will terminate on the ILEC's network, there is no reason to believe that traffic exchanged between the carriers will be out of balance in absolute terms.

in the model as the current incremental cost plus any markups above cost specified), when a portable universal service funding mechanism would permit entry. At the same time, the total amount of universal service funding specified in the model goes to the ILEC bottom line, regardless of market penetration by the CLECs and the amount of universal service funding generated by other means

C. The Model Fails to Consider Certain Key Variables That Will Affect the Profitability of Companies Participating in the Market

In determining profitability of the ILECs, the model considers revenues only from basic local service, toll services, access services, private line services, and other billings to carriers. While the model has an input for growth in cellular services (specification 185) this value is used only in calculating total telecommunications revenue for purposes of calculating universal service funding that might be derived if a surcharge is imposed on this revenue in specifications 62 and 63. Any cellular revenue or growth in cellular revenue is not considered in calculating ILEC earnings. This omission is only one of several potential sources of profit for the ILECs that the model fails to consider. The RBOCs have announced ventures in internet access services, video programming, cable television, and a host of other services. In addition, most of the RBOCs are involved in international ventures to provide telecommunications and other related services. None of these potential sources of profit are considered in calculating the net effects on ILEC earnings of the development of local competition and ILEC entry into the interLATA long distance market. If the Commission's concern is that its actions in setting interconnection and unbundled element rates or rules concerning these rates might have a detrimental impact on ILEC stock prices or dividend payments, it should recognize that

the model presents a very incomplete picture, and that the actual effect on earnings, when all sources of revenue and profits are considered, almost certainly will be substantially less than that depicted in the model.

The model also fails to consider a key impact to ILEC costs -- the effect of mergers between RBOCs. The model assumes that all in-region interLATA toll calls provided by the ILECs will terminate on their own network and thus will incur a different (and lower) cost than interLATA toll calls terminating out of region (which are assumed to be resold IXC minutes). Two mergers of RBOCs already have been proposed -- that between Pacific Telesis and SBC Corporation, and that between Bell Atlantic and NYNEX. If these mergers were to be completed, then a much higher proportion of calls than is contemplated by the model would effectively terminate "in-region" and thus would incur a lower cost per minute. Because these minutes were assumed in the model to be resold IXC minutes, the effect of mergers also would be to bring additional pressure to bear on IXC earnings, because IXCs would lose even the small margin likely to be derived from these resold minutes.

The model would benefit from a more detailed examination of the relationship between rates and costs for various services. Specification 30, for example, combines interstate and international usage. These two services have a very different cost/price relationship, and targeting of specific subsets of these customers by the ILECs as they begin to provide interLATA long distance could have a quite different impacts on IXC profitability. The calculation of the extent to which new entrants will target the most profitable customers also could benefit from a more detailed consideration of the factors that make a customer profitable for a carrier. The model is based on the assumption that

the high-volume toll user is the most profitable customer. This may not, in fact, be the case. In considering the total expenditures by a "total bill" customer, both the relationship between price and cost for the various services purchased by the customer, and the volumes associated with the customer's use of these services will be important in determining overall profitability. ILEC vertical services, for example, have a very high profit margin today. A customer who is a heavy user of vertical services may be more attractive than a high-volume toll user. This is particularly true as the higher-volume customers can demand a larger discount off full retail rates, thus narrowing the perminute profit margin, than can a lower-volume customer. Some of the IXCs' largest business customers are telecommunications resellers. Given the large discount negotiated by these customers, they are only marginally profitable today.

Finally, the model fails to consider the effects of local usage patterns on profitability. Local usage is assumed to be the same for all loops, and the cost of switching and transporting calls within a local calling area are not modeled. Where rates for basic local service are set on a usage-sensitive basis, the calling patterns of particular customer classes may be important in determining which local customers are profitable and which are not. This will be particularly true in the case where an explicit rate is adopted for exchange of local traffic between the ILECs and CLECs. In this case, the calling patterns of customer classes may have significant effects on the profitability of CLECs, and, to a much lesser extent, the ILECs

D. Certain Calculations in the Model Are Incorrect and Generate Misleading Results

The model released in conjunction with the Notice contains a number of flaws that seriously affect its reliability in predicting market outcomes. Some of the flaws identified by MCI thus far are:

1) Treatment of "stranded" facilities

The model purports to calculate the effects on ILEC costs of any investment in facilities "stranded" due to the development of competition. This component of the model is controlled by specifications 151 ("Loss in line growth at which cost is increased to represent stranded plant"), 152 ("Loss in line growth at which maximum 'shadow' line per lost line is imputed"), 153 ("Percentage of ordinary line cost attributed to 'shadow' lines"), and 154 ("% of which is reduced in each of 10 successive years (maximum 10%)"). As MCI understands this portion of the model, a value entered in specification 152 will result in a portion of the cost of a certain percentage of the difference between baseline line growth and per-specification line growth to be imputed to the ILECs' total costs. Because the model calculates costs for "stranded" plant based on loss in line growth rather than loss in total lines, the model would permit plant to be considered "stranded" even if it has not yet been built. In other words, even with a positive line growth, where the LEC is continuing to add plant to respond to increasing demand, some amount of plant could be considered to be "stranded." In actuality, any problem that may develop due to "stranded" plant will not occur unless ILEC line growth is negative -- that is, until CLEC facilitiesbased competition has grown to the extent that former ILEC customers are abandoning

ILEC loops for CLEC loops at a rate faster than the underlying growth in access lines. For this reason, MCI believes that this component of the model generates inaccurate results, and specifications 151-154 should be set to zero if the model is to be considered in the Commission's decision-making.

2) Treatment of changes in embedded cost

The model permits the user to input at specification number 131 the annual percent change in carriers' embedded cost. This value is applied to the embedded cost base of ILECs, CLECs and IXCs without distinction. The assumption underlying this calculation would appear to be that all three types of carriers are equally efficient, and therefore should experience the same degree of overall cost reduction over time. In fact, IXCs, who have operated in a competitive market for the last several years, and CLECs, who are entering a market as competitive companies, will have far less opportunity to reduce their embedded cost base than will the ILECs who have operated primarily in a protected monopoly environment in the past. The model does permit the user to specify a one-time write-off of assets (specification 95) and to specify an percentage by which the ILECs may reduce costs if their rate of return falls below 7.5 percent (specification 123). But there is no provision in the model to recognize the ongoing cost reductions that the ILECs may be able to achieve as competition develops, nor to recognize the differences in the embedded cost base between competitive companies and companies that have operated in a monopoly environment.

3) No differential treatment of CLEC and ILEC incremental loop costs

The model uses a single value to represent the cost to ILECs of providing additional loops and the cost to CLECs of providing additional (facilities-based) loops, and does not permit a differential in cost between the two types of carriers. While the degree of competition from these technologies is uncertain, it is probably that some new entrants will use a different technology for provisioning loops than that used by ILECs (e.g., wireless, cable telephony) and that all CLECs will likely use a different network architecture, this does not appear to be a reasonable assumption. The model should permit independent specification of the cost of ILEC loops and CLEC facilities-based loops.

4) No differential in cost for unbundled loop used in conjunction with CLEC switching vs. combined with unbundled local switching

The model does not distinguish in the charge to a CLEC for an unbundled loop where the CLEC provides switching and where the CLEC does not provide switching. The amount specified for the current incremental cost of providing an additional loop at specification 99 includes the local usage (switching and transport within the local calling area) associated with that loop. The costs attributed to the operation of the CLECs is this amount plus any markup defined in specifications 10 and 11 multiplied by the total number of CLEC loops less CLEC facilities-based loops. Thus, even if a positive value is specified in specification number 72 for the percentage of CLEC loops served by CLEC switches, the total cost of the loop, including local switching and transport, is attributed to the CLECs' total costs. The result is to overstate CLEC costs (presumably unbundled loops and unbundled local switching will be available as separate unbundled elements) for those loops served by the CLECs' switches.

5) Universal service costs (to CLECs) appear to be double-counted

In determining IXC/CLEC operating income, the model first sums the total billings by the ILECs to other carriers. This amount is found in the "D" level sheet at row 535. Included in this amount is the amount input at specification 58 for universal service funding. In addition to the LEC billings, the model adds costs for adding or churning loops, and for billing and collection. In line 538, the total amount for billing and collection per loop (including ILEC residual loops, see paragraph 6 below) is added to a per-line universal service amount, found in row 521. The amount is row 521 is calculated as the total universal service amount (specification 58) divided by the total of CLEC business and residential loops and stated on a monthly basis. Universal service funding thus appears as a cost to the IXC/CLEC segment twice -- once as part of the total LEC billings to the IXC/CLEC segment, and a second time as a part of the billing and collection cost per loop. The result is that IXC/CLEC costs are overstated on an annual basis by the amount of total universal service funding.

6) Mathematical errors

The version of the model released in conjunction with the Notice (MODEL30.WKS) contains two mathematical errors that MCI has discovered thus far in its examination of the model. First, the calculation of the cost of an additional access minute net of depreciation and return at specification number 102 is incorrect. The model calculates this amount as the total cost in specification 101 multiplied by the "ROR and depreciation component" in line 99. The amount should be calculated as the amount specified in specification 101 multiplied by one minus the "ROR and depreciation

component" in line 99. MCI discussed this concern with staff in the informal meeting conducted by staff on June 20, 1996, and believes that this error has been corrected in subsequent version of the model that has not yet been placed in the public record.

Second, the billing and collection cost for CLECs is calculated in the "D" level sheet, at row 538, as the sum of CLEC unbundled and facilities-based loops, plus the LEC "residual" loops times the billing and collection cost per loop. As a result, it appears that the model is attributing to CLEC total costs the billing and collection costs not only for the CLECs' loops, but also for those ILEC loops serving customers that have not become ILEC "total bill" customers. In addition, this amount appears to be redundant of row 537, which is the billing and collection expenses associated with only CLEC loops. If this is correct, then the actual cost for billing and collection for CLEC loops is double-counted. MCI believes that this dramatically overstates costs for the CLECs.

While MCI is appreciative of the extra time granted for the filing of comments regarding the model, the complexity of the model has precluded a complete analysis of all calculations contained in the model. There may yet be other problems of which we are not aware.

IV. Correct Values for Input Assumptions

As explained in the preceding section, the model fails to consider a number of important variables that will affect the ability of CLECs profitably to enter the local market, fails to consider a number of factors that will affect the overall profitability of the ILECs, and contains mathematical and logical errors that affect the accuracy and

reliability of the model's conclusions. To the extent that anyone uses the model in estimating the impact on industry segments of various decision regarding the pricing of interconnection and unbundled network elements. It would be essential that reasonable and coordinating inputs be used in specifying the operation of the model.

While MCI does not believe that use of the model in informing the Commission's decisions in this proceeding is appropriate, it offers in this section some suggestions for specification of the model that appear to yield reasonable outcomes. These suggestions are contained in an attachment to these Comments. Attachment B. In addition, MCI has incorporated into the FCC staff's model additional components that estimate the effect on stock prices for each of the seven RBOCs of changes in the FCC's model. The stock price calculator components assume that the baseline specified in the model correspond to the baseline estimate of stock analysts' earning forecasts contained in MCI's financial impact model. Increases or decreases in ILEC earnings predicted by the FCC model were then used as an input to the financial impact model to determine the likely impact on RBOC stock prices given the scenario specified in the FCC model

The scenario presented contains what MCI believes to be reasonable assumptions on values such as the underlying growth rate for various services, the underlying rate reduction rate for various services, and the rate of market penetration for CLECs into the local market, and for ILECs into the interLATA market (of course, this value depends crucially on the rate charged for unbundled network elements and upon other factors not considered in the model, as noted above). The baseline used for comparison purposes assumes no market entry by ILECs into the interLATA market, and no entry by CLECs into the local market.

In Attachment B, the effects of reducing the price of both interstate and intrastate access to cost by the year 1998 is illustrated. MCI has specified that the industry structure factor (specification 66) is set at 0.5, and has posited ILEC acquisition of "total bill" business customers at 15% and 30% for residential customers (achieved in the year 2000) and CLEC penetration of the local market at 25% for business customers and 20% for residential customers (achieved in the year 2002). No markup over incremental cost for interconnection and unbundled network elements is assumed. As can be seen from the output sheets in this scenario, ILEC earnings decline in the first year of the transition, but the losses are made more than good in subsequent years as interLATA market share increases. At the same time, the IXC/CLEC profit rate remains below the ILECs'.

Consumer surplus and overall economic surplus are positive, and the immediate effect on ILEC stock prices is very slightly negative.

This scenario illustrates the importance of significant reductions in access charges prior to entry of the RBOCs into the interLATA market. Without such reductions, the rapid increase in ILEC market share will reduce IXC margins to a far greater extent than can be offset by increases in earnings due to CLFC entry into the local market.

V. Conclusion

For the reasons stated herein, the Commission must not rely upon the released model in reaching its decisions in this proceeding. The Commission should adopt prices for interconnection and unbundled network elements which are set at TSLRIC.

Respectfully submitted, MCI TELECOMMUNICATIONS CORPORATION

Mary I Brown

Mark Bryant

Don Sussman

MCI Telecommunications Corporation

1801 Pennsylvania Ave. NW

Washington, D.C. 20006

(202)887-2551

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ATTACHMENT A: Review of RBOC Stock Price Sensitivity

A review of RBOC stock price sensitivity demonstrates that RBOC stock prices exhibit little or no reaction to regulatory actions since the enactment of the Telecommunications Act of 1996.

1) February 8, 1996 - Enactment of the Telecommunications Act of 1996.

RBOC Industry Group Price

2/7 450.71

2/8 444.65

2/9 446.80

2) April 11, 1996 - Washington UTC cuts USW revenue by \$91 million a year (Docket UT-950200).

USW Share Price	RBOC Industry G	roup Price
4/10 \$32.25	4/10 \$380.23	
4/11 \$32.00	4/11 \$377.89	
4/12 \$32.50	4/12 \$383.50	

NOTE: USW's price declined on the date of the rate case and rose back to over previous levels the day after the case. The overall RBOC average trend was the same during that time period.

3) April 19, 1996 - FCC releases Notice of Proposed Rulemaking on Interconnection (CC Docket No. 96-98).

RBOC Industry Group Price

4/18 \$393.63

4/19 \$400.66

4/22 \$405.65

4) May 29, 1996 - Georgia PSC orders 20.3% residential and 17% business discounts for resale (Docket 6352-U)

	BellSouth	RBOC	Industry Group Price
5/28	\$41.63	5/28	\$404.18
5/29	\$41.50	5/29	\$401.40
5/30	\$41.63	5/30	\$396.25

NOTE: Average price rebounded to over \$400 within 23 days on April 22nd. The closing price on that day was \$405.65.

5) June 24, 1996 - The Wall Street Journal prints story that RBOC revenues could be jeopardized if FCC adopts pricing decision promoted by the long distance industry.

RBOC Industry Group Price

6/21 \$397.00

6/24 \$396.85

6/25 \$393.88

NOTE: Share price for the RBOC average rebounded to 6/21 level within 3 days after the article is published. The close for the RBOC average on 6/27 was \$399.

June 26, 1996 - The Michigan PSC orders dialing parity within 30 days (Docket U-10138). The Illinois Commerce Commission releases decisions which provide average wholesale discount of 22% for resale of local service (Docket 95-458) and which order a \$31 million reduction in rates for Ameritech customers (Docket 96-0172).

Amerite	ch Share Price	RBOC	Industry Group Price
6/25	\$58.37	6/25	\$393.88
6/26	\$57.37	6/26	\$391.96
6/27	\$58.38	6/27	\$399.14

7) June 27, 1996 - FCC adopts local number portability decision (CC Docket No. 95-116).

RBOC Industry Group Price

6/26 \$391.96

6/27 \$399.14

6/28 \$404.52

ATTACHMENT B

CCB/OGC Simulation 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002

Model Specification 0% markup, 85% discount, access to cost 19% markup, 85% discount, access to cost

p, 00% discount, access to cost	30 MODEL30 WK3 704 marks. Philosophysis social
ganiztion of spreadsheet	

		-04 marku.	Para Hard	-C 6 % 3	200 3						
	Organization of spreadsheet A level Specifications B level Snapshot results C level Detailed results, consumer/producer welfare analy D level Calc of interstate access charge revenue & exper E level Residential demand simulation F level Business demand simulation G level MACROS (use <ali>415 M to see documentation), Sp</ali>	nse buildups, ind		1							
1 2	Rates: Traditional Access Charges Price Cap X Factor The FCC price cap rules calculates growth (g) using loops and the following specification is 1, the model uses LEC retail custs are billed at traditional access rates. If the specification is 0, th LEC provided loops (included unbundled loops) and total inter LEC switches regardless of how they are billed.	omer loops and n en the model us	ninutes that es tota:	t	53						
3	Percent that LECs price below interstate cap (Note that the 19 reflects the fact that some LECs charge below cap. Thus					0.00%	0 00%	0.00%	0 00%	0 00%	0 00%
4	represents additional pricing below the interstate cap. Price of interstate toll access minutes.	\$0 03 10	\$00303	≇0 0288	\$0 0273	\$0 0273	\$0 0052	\$0 0052	\$0 0053	\$0.0053	\$0 0053
	Percent decline in intrastate access rates (relative to avg. infla Price of intrastate access	tion for three pric \$0.0497	o: vears) \$0.04.67	\$0.0449	\$0 0436	0 00% \$0 0447	91 00% \$0 0 05 2	0 70% \$0 0 05 3	0 7 0% \$0 0054	0.7 0% \$0.0055	0.7 0% \$0.0056
7	If CLECs pay traditional access charges for minutes originating or terminating on unbundled loops. % of CCL the CLEC pays on unbundled loop minutes				0%	0%	0%	0%	0%	0%	0%
8		ides local switch	ing		100%	100%	100%	100%	100%	10 0%	100%
9 10 11 12	Monthly charge for residential loops Monthly charge for business loops				0 0% 0 0% 0 0% 0 0% 0 0%	0 0% 0 0% 0 0% 0 0% 0 0%	0 0% 0 0% 0 0% 0 0% 0 0%	0 0% 0 0% 0 0% 0 0%	0 0% 0 0% 0 0% 0 0%	0 0% 0 0% 0 0% 0 0% 0 0%	0 0% 0 0% 0 0% 0 0%
13	If CLECs pay non-traditional access charges for minutes or gnating or terminating on unbunded loops. Price of interconnection toll minutes expressed as a markup of of current incremental cost (CIC) / Note Specify CIC in the cost section.)					0.0%	0.0%	O 0946	0. 0%	0 0%	0 0%
	Supplemental Access Billing - Percent of difference between t	raditional and	ring diliconar	access also	. Lulk billed o	••					
14 15 16 17	Interstate originating minutes not subject to access charges interstate terminating minutes not subject to access charges Intrastate originating minutes not subject to access charges intrastate terminating minutes not subject to access charges					0% 0% 0% 0%	0% 0% 0% 0%	0% 0% 0% 0%	0% 0% 0% 0%	0% 0% 0% 0%	0% 0% 0% 0%
18	Negotiated interconnection rate between CLEC & IXCs expres of difference between LEC non-traditional as			a to the non-	95% traditional rai	95% te to get the	9 5% total)	35%	95%	9 5 %	9 5%
	Rates: Local service										
		\$13 22 \$29 10	\$13 24 \$2740	\$13.66 \$27.56	-2 0%	-2. 0%	-20%	-2 0%	-2 0%	-2 0%	-2.0%
23	Residential subscriber line charge (SLC) cap SLC cap for additional residential access lines Multi-line Business SLC cap (Note: single line business loops - 10% of total business charge: Also, some SLCs, especially for multi-line busines			\$3 50 \$3 50 \$6 00	\$3.50 \$3.50 \$6.00	\$3 50 \$6 00 \$6 00	\$3 50 \$6 00 \$6 00	\$3 50 \$6 00 \$6 00	\$3 50 \$6 00 \$6 00	\$3.50 \$6.00 \$6.00	\$3 50 \$6 00 \$6 00
	model gradually increases actual averages up to caps										
25 26	For LEC customers, percent change in Residential local rates first year of CLEC competition Business local rates first year of CLEC competition	0 6-			0% 0%	0% 0%	0% 0%	0% 0%	0% 0%	0% 0%	0% 0%
27 2 8 29	CLEC local rates as a percentage of LEC monthly rates including Residential Business CLEC/LEC "total bill" gustomer discount (shown as positive) to	-	tonal lines		90% 90% \$0.00	9 0% 9 0% \$0 00	90% 90% \$0.00	90% 90% 30 00	9 0% 9 0% \$0.00	90% 90% \$0.00	90% 90% \$0.00
30 31 32 33 34 35	Rates: Toll A verage price per toll minute - all switched services including 800, 900, operator service, calling card, etc. Residential average toll rates interstate (including international) interLATA intrastate (intraLATA). Busness average toll rates interstate (including international) interLATA intrastate (including international) interLATA intrastate. INC "wholesale" price break to LECs for foil minutes that LECs.	\$0 1976 \$0 1607 \$0 1256 \$0 1746 \$0 1198 \$0 1258	\$0 1960 \$0 1594 \$0 1243 \$0 1722 \$0 1161 \$0 1243	95 0 0%	85 0 0%	e5 00%	85 00%	85 00%	85 00%	95 00%	es oo ₂₆
37 3 8 39	Flow through of traditional access charge changes (in per minu Residential interstate Residential intrastate Business interstate	te toli rates)	A 4 6 70 00 -	100 00% 100 00% 100 00%	100 00% 100 00% 100 00%	100 00% 100 00% 100 00%	100.00% 100.00% 100.00%	100.00% 100.00% 100.00%			
	Page 1		Attachin	⊓कााः						7 /8/96 1 35 F	- IVI

40	CCB/DGC Simulation Business intrastate	1993	994	19 9 5 100.00%	1996 100 00%	19 97 100 00%	19 98 100 00%	19 99 100 00%	20 0 0 100 00%	2001 100 00%	20 02 100 00%
41 42	CLEC flow-through (in per minute toll rates) of the difference betweend alternative access charges Residential interstate Residential interstate	en traditions	BI .	10 0 0% 10 0 0%	10 00% 10 00%	10 00% 10 00%	10.00% 10.00%	10 00% 10 00%	10 00% 10 00%	10. 00% 10. 00%	10 00% 10 00%
43 44	Business interstate Business intrastate			10 00% 10 00%	10 00% 10 00%	10 00% 10 00%	10 00% 10 00%	10 00% 10 00%	10 00% 10 00%	10 00% 10 00%	10 00% 10 00%
45 46				4 0%	4 0% 0 02	-4 O 96	-4 0 %	4 0%	-4 0 %	-4 0%	-4 096
47 48 49	Added price cuts to non-access portion of toll charges for CLEC/LEC "total bill" residential customers STD CLEC/LEC "total bill" business customers				0 00% 0 05 0 00%	0.0% 0.0%	0.0% 0.0%	0.0% 0.0%	0 0% 0 0%	0 0% 0 0%	0 0% 0 0%
50 51					0.05	10 0%	10 0%	10 096	10 O9+	10 0%	10 0%
52 53 54 55 56 57					-0.40 -0.25 -0.05 -0.008 -0.10 -0.10						
	Per interstate traditional access minute Per intrastate traditional access minute	\$0 683	}⊖ 695	\$ti 69 8	\$0.719	\$0.741 \$0.00 \$0.000 \$0.0000 0.0% 0.0% \$0.0000 \$0.0000	\$0.741 \$0.00 \$0.0000 \$0.0000 0.096 0.096 \$0.0000 \$0.0000	\$0.741 \$0.00 \$0.000 \$0.0000 0.0% 0.0% \$0.0000 \$0.0000	\$0.741 \$0.00 \$0.0000 \$0.0000 0.096 0.096 \$0.0000 \$0.0000	\$0.741 \$0.00 \$0.0000 \$0.0000 0.096 0.096 \$0.0000	\$0.741 \$0.00 \$0.0000 \$0.0000 0.096 0.096 \$0.0000 \$0.0000
66	Industry Structure Distribution skewing factor [1= very little: 1= pure cream skim] Note: CLECs are likely to target the most profitable customers is markets. This is called "cream skimming." The model has 7 calle by toil usage. The model assumes that the highest volume toil cus successful competitors will be at cream skimming. To see how this icops, vary the skiew, and then observe the modeled distribution of "level".	gones of res tomers are to tractor work	idential custo he most profit s, specify a g	mers and 3 in table. The uppercent of the control o	categories of user uses the entage of re	of business of le skewing fa sidential CLE	sustomers str actor to speci EC or LEC "t	ratified ify how otal bill"			
67	% of CLEC traffic at alternative access charges, vs. traditional acce				10 0%	10 0%	100%	10 0%	100%	100%	100%
68 69 70 71	96 of all loops provided by CLECs (Note IRUN will range value all Residential Business STD1 for avg. percent difference all years	For the perc	entages		0 00 0 00 0 25 0 25	0 02 0 03	0 05 0 07	0 0 7 0 10	0 10 0 15	0.15 0.20	0 2 0 0 25
72 73 74 75	STD2 for year-over-year changes % CLEC loops served by CLEC switch % CLEC loops provided with CLEC's own facilities Likelihood of terminating with affiliate if CLEC originates a call % of terminating toll that IXCs "reroute" to LEC thru CLEC			√ 796	025	20 0% 1 0% 0% 0 0%	20 0% 2 0% 0% 0 0%	25 0% 3 0% 0% 0 0%	25.0% 4.0% 0% ∂.0%	30.0% 5.0% 0% 0.0%	30 0% 6 0% 0% 0 0%
76	% of business originating minutes via special access		43 0%	13 4 %	43 99 6	44 3%	44 7%	45 2%	45 6%	46 1%	46 69 ы
77 79	IXC share of LEC residual customer Intral: ATA to Residential Business		0% 0%	596 596	796 796	9% 9%	11% 11%	12% 12%	14% 14%	16% 16%	18% 18%
79 8 0 8 1	% of all loops that become LEC "total bill" customers. (Note: /RUN Residential Business STD1 - avg. percent difference	Jwill range v	ralue all of the	n percentage	0 00 0 00 0 00 0 25	0 00 0 00	9 12 0 0 8	0 24 0 12	030 015	030 015	030 015
62 63 64	STD2 - year over year changes Percent of LEC originated interstate that terminates "in region" Percent of LEC originated intrastate that terminates "in region"		30% 90%	30 % 90 %	0 25 30% 90%	30% 90%	30% 90%	30% 90%	30% 90%	30% 90%	30% 90%
85 86 87 88	Churn 96 "total bill" & unbundled CLEC toops that churn in 1996 STD initial churn rate Year-over-year change in churn rate through 2002 Churn rate for 2002 through 2010				25 00% 25% 2% 10%						
89 90	Key Cost Specifications Inflation in the economy (chain-type GDP price index) STD	2 7%	2.7%	<i>∄</i> 5%	2 6% 0 009	2 9%	2 7%	2 7%	2.7%	2 7%	2 7%
91	Growth in real GDP Moody's Asa Corporate bond yield	2 9% 122	4 1 % 7 97	2 6% ? 5 9	1 8% 7 10	2 0% 7 4 0	2 0% 7 4 0	2 2% 7 40	2.2% 7.40	2 2% 7 4 0	2. 2% 7.40
94 95 96	Depreciation rate increase in deprieserve per dollar of depriexpense. One-time write-offs of gross plant (\$billions, shown positive). Change in deferred laxes and other prepaid expenses.	0 073 0 45456 1 5%	0 0 7 3 0 4 4 8 91 0 4%	0 073 6 55 \$0	0 073 0 45 \$0	0 073 0 45 \$0	0 073 0 45 \$0	0.073 0.45 \$0	0.073 0.45 \$0	0 073 0 45 \$0	0.073 0.45 \$0
97 98	Amortization of deferred taxes and other prepaid expenses Percent of tax at statutory rate that will be deferred			·0 0% 50%	-8 0% 50%	·8 0% 50%	-9 0% 50%	-8 0% 50%	8 0% 50%	-8 0% 5 0%	-0 0% 50%

Key Cost Specifications - continued Excense
Current incremental cost - modelled as cost per change in physical units Added monthly cost for providing an additional loop
(Less included ROR & depreciation) \$15.10 ROR & depreciation component 5096 100 101 Added switching cost for additional access minute (Less included ROR & deprecation)
Assumed percent difference between CICs specified \$0.0045 \$0.0045 \$0,0045 \$0.0046 \$0 0046 \$0.0046 \$0,0047 \$0 0047 \$0.0047 102 \$0.0023 \$0.0023 \$0 0023 50 0023 \$0,0023 \$0 0023 \$0 0023 \$0 0023 096 103 above and the actual CICs for loops and access minutes 0% 0% 09 DP# 096 104 \$4 00 \$4 00 \$4 00 \$4.00 \$4 00 \$4 00 \$4 00 \$4.00 Added monthly cost to provide billing/austomer service (Note: Cost is per loop. Half the amount specified is removed from expense if LEC dustomer loops decrease Added LEC expense of adding or churning an unbundled loop (including own). Added CLEC expense of adding or churning an unbundled loop (including own). \$50.00 \$75.00 \$52.59 \$78.89 \$54 40 \$81 60 \$50 **6**5 \$53.49 \$76.29 \$80.23 106 To provide residential toll per minute (less ROR & depreciation) 107 \$0.0600 \$0,0600 \$0.0600 \$0.0605 \$0.0609 \$0.0613 \$0.0618 \$0.0622 \$0.0626 Interstate toll including international settlements \$0 0300 \$0 0300 \$0 0300 \$0 0302 \$0 0305 \$0 0307 \$0 0009 \$0 0311 \$0 0313 100 intrastate toll To provide business toll per minute (less ROR & depredation) \$0 0500 \$0 0200 \$0 0504 \$0 0202 109 Interstate toil including international settlements \$0.0500 \$0.0500 \$0.0508 \$0.0511 \$0.0515 \$0.0518 \$0.0522 \$0 0200 \$0 0203 \$0 0204 \$0 0206 \$0 0209 Added operating expense that are modeled as percentages of added revenue 30 00% 30 **00%** 30 **00%** 30 **00%** 30 0**0%** 30 **00%** 30 **00%** 30 00% LEC Vertical services
LEC Special Access Services 64% 64% 40 00% 64% 64% 40 00% 64% 64% 40 00% 70% 64% 64% 40 00% 64% 64% 40 00% 64% 64% 40 00% 112 113 114 115 64% 64% 40 00% 6494 Private line services
Other and misc LEC services (billing & collection, etc) 64% 40 00% Other IXC/CLEC revenue (other than switched toll 70% Expense kickers. Percentage of loops that are unbundled above which full additional expenses occur Total added LEC marketing expense when unbundled loops exceeds threshold 116 096 494 896 12% 1696 20% 24% Residential (billions) \$0.0 \$03 \$0.3 \$0.3 \$03 \$03 \$03 \$0.3 \$03 \$03 \$03 \$03 Business (billions)

Total added LEC marketing expense if LEC share of "total bill" customer loops exceeds threshold 118 \$0.3 \$0.3 119 \$0.3 \$0.3 \$0.3 Residential (billions) \$03 \$03 \$0.3 \$0.3 \$0.3 \$0.3 \$0.3 \$03 \$0.3 \$0.3 120 Total added IXC marketing expense if LEC share of total bill loops exceeds threshold 121 122 Residential (billions) \$03 \$03 \$03 \$03 \$03 \$03 \$0.3 \$0.3 \$0.3 \$0.3 \$03 \$03 \$0.3 \$0.3 Business (billions) \$0.3 Maximum percent by which LEC reduces embedded costs in year if prior year RQR on rate base fell below 7.5% in prior year 123 5 0% 5 0% 5 0% 5 0% 5 0% 5 0% 5.0% Rates of change in costs Annual change in CIC for loops (before inflation) 124 2 00% 2 00% 2 00% 2 00% 2.00% 2 00% 2 00% 0 01 -2 00% 125 Annual change in CIC for access minutes (before inflation)
Decrease to CIC for access minutes for the first year
that competition exceeds % of loops specified on line 116 126 2 00% 2 00% 2.00% 2 00% 2.00% 2.00% 127 0.0% 0.0% 0.0% 0.096 0.096 0.096 0.0% 128 0.094 0 0% 0.0% 0 0% 0.0% 00% [shown for appropriate years] 129 130 131 2 00% 0 01 2 00% Annual change in CICs for toll minutes (before inflation) 2 00% 2 00% · 2 009 2 00% 2.00% Annual change in embedded cost before inflation (LEC, IXC & CLEC) -1 00% 00% 1 00% 1.00% 1.00% -1.0096 1.00% -1.00% 132 133 STD 0.01 Annual change in added cost of billing/collection per new line -1 00% 1 00% -1 00% 1 00% 1 00% 1 00% 1 00% 1 00% 与文诗 (维尔斯多尔克) 144003704 . 0.00 48/200 Additions to LEC gross plant rcentage \$612 \$204 Net replacement investment [percentage of prior year plus constant] Per added residential primary loop (in dollars) 0 7760% Constant \$1.00 \$600 \$200 \$500 \$637 \$212 \$624 \$208 \$600 \$600 \$606 \$618 \$643 \$214 \$200 \$500 \$202 \$206 \$515 \$206 136 Per added residential additional incos \$200 \$210 137 138 Per added business toop (in dollars)
Per shadow toop (in dollars) [see line 151 below] \$505 \$202 \$526 \$210 \$536 \$214 \$500 \$510 \$520 \$531 \$212 \$25 \$32 \$100 \$200 \$200 \$204 \$208 Per thousand added access minutes (in dollars)
Per thousand added toll minutes (in dollars)
To a loop unbundleable (in dollars) \$25 \$32 139 \$23 \$24 \$24 \$24 \$25 140 141 \$ 3 **9.1** \$1 \$1 \$1 \$1 \$1 \$1 \$1 \$101 142 For vertical services per \$1000 added revenue \$100 \$100 \$100 \$102 \$103 \$104 \$105 \$106 \$107 For special access per \$1000 added revenue For private line per \$1000 added revenue For other & misc. per \$1000 added revenue \$1,020 \$1,020 \$102 \$1,051 \$1,051 \$105 \$1,062 \$1,062 \$106 143 \$1,041 \$1,041 \$1,072 \$1,072 \$1,000 \$1,000 \$1,000 \$1,010 \$1 030 144 \$1.000 \$1 000 \$100 \$1 010 \$1,030 **Key Cost Specifications - continued** Flates of change in investment per unit (before inflation). 1 8% Per loop or access minute 1 6% 1 6% 1 6% 1 6% 1 7% 1 7% 1 7% 1 7% 5% 5% 5% 1 8% 1 8% 1 8% 1 7% 1 7% 1 7% 1 7% 1 7% 1 7% 1 7% 1 7% Associated with stranded plant 147 148 149 To make loops unbundleable Per toll minute All other types of investment

Unavoidable costs when loops are lost to facilities based competition.

Note: The model adds fixeds amount CIC expense and investment per loop. Reductions in total loops, therefore, reduce total expenses and investment. In reality, when loops are lost to competition, some portion of the plant and associated expenses remain. Even though total loops may be growing, some losses to liabilities competition may be occurring. The spreadsheet uses "shadow growth" to model this. You should spectly a loop growth rate below which some costs are unavoidable and some plant is stranded due to facilities based competition. For each loop below the threshold you spectly, a small fraction of a shadow or stranded doep is imputed. The fraction increases until treaches 1 shadow loop per lost loop at the second user specified threshold. A third specification sets the percentage of normal CIC for each shadow loop that will be included in expenses. Since costs associated with lost customers can be recurred over time, you should use the fourth specification to set the percentage of CIC for shadow. Attachment:

2001

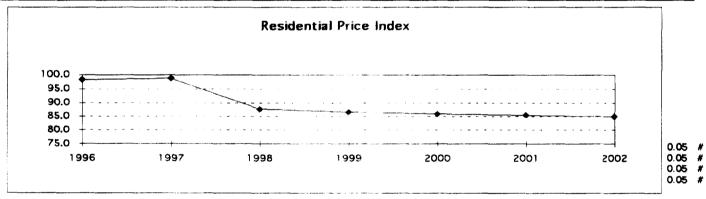
2000

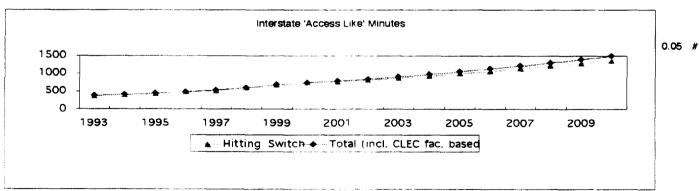
2002

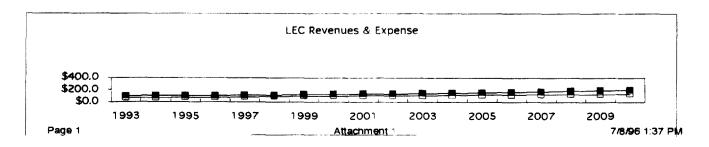
	CCB/OGC Simulation loops that will be eliminated in each of ten successive years. The rate of change in that specification is set by the user in line		1994 sociated with	1995 Istranded pi	1990 ant per shad	1997 low loop is s	1998 pecified on li	1999 ne 138	20 00	2001	2002
151 152	Loss in line growth at which cost is increased to represent strangless in line growth at which maximum "shadow" lines per lost lin				0 0 % 0 0%						
153 154	Percentage of ordinary line cost attributed to "shadow" lines % of which is reduced in each of 10 successive years (maxim	um 1096)			096 096						
155 156		<i>251</i> % TD	9 54%	· 75%	175% 003	1.75%	1 7 59 6	1 7 5%	1.75%	1 75%	1 75%
157	Underlying growth in total residential lines	2 57%	3 25%	2 90%	3 00%	3 00%	3 00%	3 00%	3 00%	3 00%	3 00%
15 0 159 160	Underlying growth in business lines	TD 5 05% TD	∮ 5 5%	63 0%	0.01 53 0% 0.02	530%	530%	530%	53 0%	530%	53 0%
161 162	Underlying toll-minute growth (exclusive of price elastic stimulating Residential interLATA interstate (per household)	on) TD		3.50%	3 50% 0.01	3 50%	3 50%	3 50%	2. 25%	2 25%	2 25%
163 164	Residential interLATA intrastate (per household)	TD		3 0 0%	3 50% 0 01	3 50%	3 50%	3 50%	2 25%	2 25%	2 25%
165 166	Residential intraLATA (per household) Business interLATA toll per line	5 0 6%	೨1 <i>6</i> %	10.0% 2.00%	2 25% 5 0 0%	2 25% 5 00%	2 25% 5 00%	2 2 5% 5 0 0%	2 25% 2 25%	2 25% 2 25%	2 25% 2 25%
167 168	Business intraLATA toll per line	TO		15 0%	0 0 1 2 2 5 %	.≥ 2 5 %	2 25%	2 25 %	2 2 5%	2 25%	2 2 5%
170	Special access revenue	-2 5%	5 6%	2 0%	2.0%	2.0%	2 0%	20%	2.0%	2 0%	2.0%
	Percent of special access that is interstale LEC private line & misc toll revenue	68 7% 12.8%	68 7% 10 2%	58 7% ○ 0%	68 7% 5 00%	68 7% 5.00%	68 7% 5 00%	6 8 7% 5 00%	68.7% 5.00%	6 8.7% 5.0 0%	69.7% 5.00%
172 173		0 2% 4 7%	0 2% 3 7%	0 2% 9 0%	0 2% 2 0%	0 2% 2 0%	0 2% 2 0%	0 2% 2 0%	0 2% 2 0%	0. 2% 2. 0%	0.2% 2.0%
1 74 175	Percent of other revenue that is regulated Percent of other revenues that is interstate	75 0% 2 8%	75 0% ⊇ 8%	*5.0%+6 .∂6%-	?5 0% 2 8%	75 0% 2 8%	75 0% 2 8%	7 5 0% 2 8%	75 0% 2 8%	75. 0% 2. 0%	75.0% 2.8%
176 177	Growth rate in other taxes	1.5% 2.6%	0.4% 2.4%	: 3% 2.5%	13%	1 3%	13%	13%	1.3%	13%	13%
178		∠ 0%-6 31 6 %-6	33 1%	33 3%	2 5% 3 3 3%	2 5% 3 3 3%	2 5% 3 3.3%	2 5 % 3 3 3%	2 5% 3 3 3%	2 5% 3 3.3%	2 5% 33 3%
179	LEC shareholder equity as percent of net plant	46 69 6	15.7%	46 0%	16 0%	46 0%	46 0%	46 0%	46 0%	46 O%	46 0%
180 181	Growth in other IXC revenue percent of other IXC revenue that is interstate	80%	80%	3 0% 90%	3 0% 8 0%	3 0% 80%	3 0% 80%	3 0% 80%	3 0% 90%	3.0% 60%	3 0% 60%
182	Growth in other CLEC revenue			10%	10 0%	9 5%	9.0%	8 6%	8 1%	7 7%	7 4 96
183 184	percent of other CLEC revenue that is interstate. Growth rate in mobile other than cellular & PCS.	73%	73 %	73% 2.5%	73% 2.5%	73% 2.5%	73% 2.5%	7 3% 2.5%	73% 2.5%	73% 2.5%	73% 2.5%
105	Crowth in collulur 8, PCC	33 55 0	2 1 95 %	4 0%	12 1 21 6	10 1016	10 10%	10 10%	10 10%	10 1 0%	10 1 0%
186	percent mobile & cellular revenue that is interstate	794	"CA"	.,946	7%	7°96	7%	7%	70 ₄₁	7%	7%

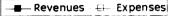
CCB/OGC Simulation 0% markup, 85% discount, access to cost	1996	1997	1998	1999	2000	2001	2002					
Toll Minutes (billions)	475.1	519.4	606.2	695.7	759.0	819.4	883.5					
Telephone Penetration	93.9	94.0	94.0	94.1	94.1	94.1	94.2					
Inflation Index	105.2	108.1	111.0	114.0	117.1	120.3	123.5					
Residential Price Index (1994 = 100)	98.1	98.6	87.5	86.5	85.9	85.4	84.9					
Average Total Residential Bill at 1994 Usage Levels												
Lowest toll users	\$30	\$29	\$29	\$30	\$30	\$29	\$29					
Mid Range Customer	\$47	\$47	\$47	\$43	\$43	\$43	\$43					
Highest 3% of toll users	\$229	\$225	\$224	\$176	\$172	\$170	\$169					
LEC high cost/Surcharge funding (\$Billions)	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7					
Total LEC Revenues (\$Billions)	\$106.2	\$111.2	\$109.5	\$125.0	\$1 33 .5	\$135.8	\$138.1					
LEC EBITDA (\$Billions)	\$50 .5	\$54.0	\$45.4	\$55 .5	\$60.7	\$61.4	\$61.8					
LEC EBITDA (1994 \$Billions)	\$48.0	\$49.9	\$40.9	\$48.7	\$51.8	\$51.1	\$50.1					
LEC rate of return on rate base	14.4%	16.1%	10.7%	15.5%	17.9%	18.2%	18.5%					
Total IXC & CLEC Revenues (\$Billions)	\$75.1	\$83.3	\$69.9	\$71.5	\$76.2	\$86.3	\$96.9					
IXC & CLEC operating profits (\$Billions)	\$24.0	\$26.9	\$29.9	\$30 .3	\$31.7	\$35.7	\$40.1					
IXC & CLEC operating profits (1994 \$Billions)	\$22.8	\$24.9	\$27.0	\$26.5	\$27.1	\$29.6	\$32.4					
Productivity: forecast period divided by historic period		.EC input:		182.5% IL	istry Price:		147.1%					

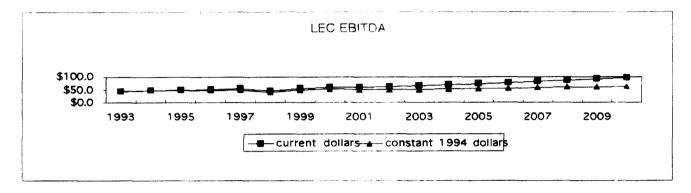
Change in Consumer Surplus from Base C	ase (billions)						
Residential	\$0 .0	(\$0.8)	\$6.8	\$7.8	\$8.1	\$8.4	\$8.6
Business	\$0.0	(\$0.8)	\$7.6	\$9.0	\$10.0	\$10.8	\$11.7
LEC Surplus	\$0.0	(\$0.1)	(\$7.7)	(\$3.2)	(\$1.6)	(\$3.0)	(\$4.7)
IXC & CLEC	\$0.0	\$0.1	\$0.2	(\$1.4)	(\$2.0)	(\$1.1)	\$0.0
Government	\$O.Q	\$0.1	(\$4.9)	(\$3.5)	(\$3.2)	(\$3.4)	(\$3.6)
total	\$0.0	(\$1.4)	\$2.0	\$8.6	\$11.3	\$11.6	(53.6) \$12.0

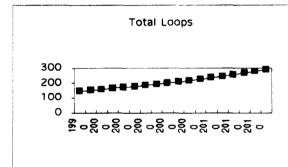


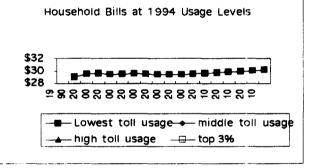


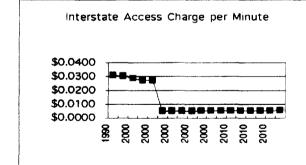


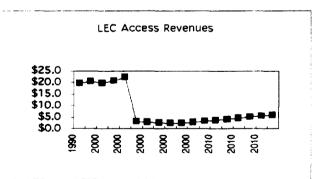


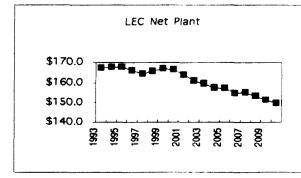


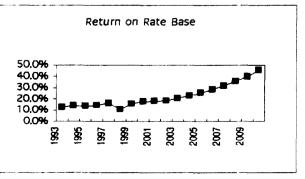


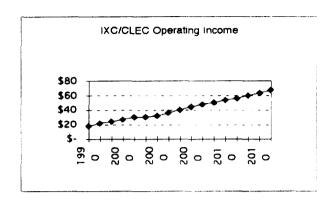












	Ameritech			Bell Atlantic		BellSouth		NYNEX		PacTel		SBC		JS West
2000	_		_		_		_		_		_		_	
Earnings Loss	\$	92	\$	85	\$	-	\$	61	\$	39	\$	93	\$	47
Percent Decrease in Earnings		3.10%		3.10%		3.10%		3.10%		3.10%		3.10%		3.10%
ROE		22.09%		21.97%		17.51%		19.82%		35.95%		22.64%		28.19%
Cash/Construction		193.06%		148.04%	1	47.82%		130.50%		109.47%		183.38%		131.82%
Earnings/Dividends		195.13%		196.46%	1	85.15%		183.50%	•	129.44%	â	212.48%		145.16%
Stock Price Effect 1996 Stock Price After Hit February 1996 Stock Price Percent Decrease	\$	56.60 59.63 5.09%	\$	64.91 68.38 5.07%	\$ \$	38.55 40.38 4.53%	\$	49.63 52.13 4.79%	\$ \$	28.75 30.25 4.96%	\$	52.89 55.75 5.13%	\$	32.26 34.00 5.12%
Composite Decrease		4.96%												

CERTIFICATE OF SERVICE

I, Carolyn McTaw, do hereby certify that copies of the foregoing Comments were sent via first class mail, postage paid, to the following on this 8th day of July, 1996.

Reed E. Hundt**

Chairman

Federal Communication Commission

Room 814

1919 M Street, NW

Washington, DC 20554

James H. Quello**

Commissioner

Federal Communication Commission

Room 802

1919 M Street, NW

Washington, DC 20554

Rachelle E. Chong**

Commissioner

Federal Communication Commission

Room 844

1919 M Street, NW

Washington, DC 20554

Regina Keeney**

Chief, Common Carrier Bureau

Federal Communications Commission

Room 500

1919 M Street, N.W.

Washington, D.C. 20554

Richard Welch**

Chief, Policy and Program Planning

Division

Federal Communications Commission

Room 544

1919 M Street, N.W.

Washington, D.C. 20554

International Transcription Service**

1919 M Street, NW

Washington, DC 20554

Gloria Shambley** (3)

Common Carrier Bureau

Federal Communications Commission

Network Services Division

Room 235

2000 I. Street, N.W.

Washington, D.C. 20554

Mary DeLuca**(2)

Common Carrier Bureau

Federal Communications Commission

Network Services Division

2000 L Street, N.W., Room 210

Washington, D.C. 20554

Susan P. Ness**

Commissioner

Federal Communications Commission

1919 M Street, N.W., Room 832

Washington, D.C. 20554

Gerald Matisse**

Chief Network Services Division

Common Carrier Bureau

Federal Communications Commission

2000 M Street, M Street, Room 832

Washington, DC 20554

Kevin C. Gallagher

360° Communications Co.

8725 West Higgins Road

Chicago, IL 60631